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Ontario Department of Education

REGULATIONS, COURSES OF STUDY

AND

EXAMINATIONS

OF THE

Normal Schools

OF

ONTARIO

FOR

FIRST CLASS CERTIFICATES

Session 1922-1923

PRINTED BY ORDER OF

THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO:
Printed by CLARKSON W. JAMES, Printer to the King's Most Excellent Majesty
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Regulations, Courses of Study

AND

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FOR

First Class Certificates

Ministry of Education, Ontario
Historical Collection

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IMPORTANT NOTICE

Applications for admission to the courses for First Class certificates shall be made to the Deputy Minister not later than August 26th on a form to be supplied by him. Applicants who fail to comply with this provision will forfeit their claim to admission. (See Regulation 4.)

REGULATIONS, COURSES OF STUDY, AND EXAM-INATIONS FOR FIRST CLASS CERTIFICATES

LOCATION

1. The courses for First Class certificates are to be given at the Normal Schools and the rural and urban Public Schools which are used as Model Schools in connection therewith, at Hamilton, London, Ottawa and Toronto.

PURPOSE

2. The purpose of the courses for first-class certificates is to prepare candidates therefor in the theory and the art of organizing, governing, and teaching the pupils of the Public and the Separate Schools and of Grades B and C Continuation Schools; and to improve the general culture of such candidates and, in particular, their academic preparation for teaching the subjects prescribed in the courses of study of the Public and Separate Schools and of Grades B and C Continuation Schools.

CONDITIONS OF ADMISSION

3. The qualifications for admission to the course for a First Class certificate are as follows:

(1) The certificate that the applicant has passed the Lower and Upper School examinations under former regulations or that he holds a degree from a British University, approved by the Minister as the equivalent thereof in the standard and the content of the undergraduate courses therefor or certificates that he has passed the Departmental examinations in the following subjects:—

(*a*) Subjects of the Lower School Course:—
Biology (when this subject is not selected as an option in the Upper School).

(*b*) Subjects of the Middle School Course:—
Physics,
Chemistry (when this subject is not selected as an option in the Upper School).

(*c*) Subjects of the Upper School Course:—
English (Literature, Composition),
History.

Two of—
Algebra,
Geometry,
Trigonometry.

Two of—
Latin,
Greek,

French,
German or Spanish,
Biology (Botany and Zoology),
Physics and Chemistry (for either of which the third Mathematical subject may be substituted.

(2) The following documents, on official forms to be supplied to him on application to the Deputy Minister:

(*a*) A statement signed by himself that he applies for admission to a Normal School with the intention of teaching at the earliest opportunity.

(*b*) An agreement that, if successful in obtaining a teacher's certificate, he will teach thereon in the Provincial schools of Ontario for at least the first year of his subsequent teaching experience.

NOTICE.—**A violation of this agreement renders the certificate invalid.**

(*c*) A certificate from competent authority that he is a British subject, and either a certificate from the Deputy Registrar-General of Births, Parliament Buildings, Toronto, or a declaration by one of the parents or other relative or other person cognizant of the fact, that the applicant will be at least eighteen years of age before October 1st of the year in which the application is made.

(*d*) A certificate from a clergyman or other competent authority that he is of good moral character.

(*e*) A certificate from a duly qualified medical practitioner that for the purposes of this certificate he has made a careful examination of the applicant and certifies as follows:

(I) That he is free from heart disease or any other serious organic affection;

(II) That he is free from pulmonary affection, defective hearing, or seriously defective eyesight, or abnormal conditions of appearance which would interfere with his work as a teacher; and—

(III) That in other respects also he is physically able for the work of a teacher as prescribed in the courses of study of the Normal School and of the Provincial Schools represented in the certificate for which he is a candidate. [See also Regulation 6 (6)].

APPLICATION FOR ADMISSION

4.—(1) Application for admission, accompanied by the documents prescribed in 3 (2), shall be made to the Deputy Minister not later than August 26th on a form to be supplied by him. On receipt thereof the Deputy will send the applicant a card of admission to a course for an Interim First Class certificate, and, without this card, he will not be admitted.

NOTICE.—**Candidates who fail to comply with the above regulations will forfeit their claim to admission to the course.**

(2) Candidates who have appealed against the results of the Midsummer examination, or who expect to complete their academic standing in September, should apply for admission as above. If successful they will be admitted on the same terms as other applicants.

SESSIONS, TERMS AND VACATIONS

5.—(1) (*a*) The session of the Normal Schools for 1922-1923 will begin September 19th at 9 a.m. and end June 22nd, and will be divided into three terms. the first, from the beginning of the Session in September to the beginning of the Christmas vacation; the second, from the close of the Christmas vacation until March 31st; and the third, from April 1st to the close of the session.

(*b*) On application to the Deputy Minister, teachers-in-training who are required to re-attend, may enter at the beginning of the second term and remain until the close of the session in June. [See also Regulation 43]

(*c*) Teachers-in-training who, at a previous session, were prevented, through sickness or other compelling cause satisfactory to the Minister, from completing their course, will be permitted to enter at a special date to be determined in each case by the Minister.

(2) There shall be two vacations as follows:

At Christmas, beginning on December 16th, and ending January 2nd; and at Easter, beginning on Good Friday, and ending on the second Monday after Easter Day.

(3) The daily session shall be one of five hours and a half, inclusive of recesses. Saturday shall be a holiday.

DUTIES OF STAFFS

6.—(1) Subject to the regulations and to the approval of the Minister of Education the Principal of each Normal School shall prescribe the duties of his staff and be responsible for the efficiency of the Normal and the Model Schools. The other members of the staff shall be subject to his authority.

(2) As part of his work of supervision the Principal shall inspect the Normal and the urban and the rural Model Schools as early as practicable in the beginning of each session, and shall prepare a detailed report thereon for the consideration of the Director of Professional Training at his official visit. In the event of immediate action by the Department being, in his judgment, necessary in any case, the Principal shall submit promptly a special report thereon for the consideration of the Minister.

(3) Subject to instructions from the Minister, Normal School Masters, to be designated by him each year, shall visit, in company with the Public School Inspector, rural schools in the district in which the Normal School is situated. Such masters shall submit, within a fortnight after their visit, a report of their observations for the consideration of the Minister and the whole staff of the Normal School.

(4) Subject to instructions from the Minister, each member of the Normal School Staffs shall take part in the work of the Teachers' Institutes at such dates as the Minister may arrange.

(5) (*a*) Concerted work on the part of the Normal and Model Schools shall be secured by frequent conferences of the staffs of both schools.

(*b*) Especially at the beginning of each session, the Normal School master who takes the Science of Education and the other members of the Normal School staff shall discuss with the staffs of the Model Schools the subjects of General Method and Child Study as set forth in Regulation 14 below, and both staffs shall organize and conduct the work for Observation and Practice-teaching so as to secure a proper co-ordination between it and the principles of General Method as developed in the Normal School classes.

NOTE.—It is to be understood that the aim of these discussions is not to set up a rigid uniformity of procedure in Observation and Practice-teaching, but rather to establish an intelligent connection between theoretic principles on the one hand and their practical applications on the other.

(6) When, notwithstanding the certificate prescribed in Regulation 3 (2) (*e*), a teacher-in-training is reported to the Minister by the Principal as being physically unfit, the Minister may order a special medical examination of such teacher-in-training, and, as a result thereof, may direct the Principal to dismiss him from attendance.

(7) The Principal shall, at any time during the session, exclude from the course for an Interim First Class certificate teachers-in-training whose class work, in his judgment, shows them to be unduly defective in scholarship or whose conduct or progress is unsatisfactory.

(8) As soon as the organization of the Normal School is completed, the Principal shall direct the attention of the teachers-in-training to the regulations that prescribe their duties and responsibilities while in attendance at the Normal School.

DUTIES OF TEACHERS-IN-TRAINING

7.—(1) Teachers-in-training shall board and lodge at such houses only as are approved of by the Principal.

(2) They shall attend the classes regularly and punctually, and shall submit to such discipline and direction as the Principal may prescribe.

(3) All teachers-in-training are required to review, before the session opens, such Public and High School courses as are the academic bases of the professional courses for Interim First Class certificates.

(4) For the welfare of the female teachers-in-training, the Minister has appointed at each Normal School a member of the staff of their own sex to have oversight, during the session, of the social life of these students. This teacher is at all times accessible to the female students for consultation and advice.

TEXT-BOOKS.

8.—(1) The text-books for the academic work shall be those prescribed in each subject for the High Schools.

(2) The academic text-books which form the bases for the professional work shall be those prescribed for the Courses of Study of the Public and Separate Schools and of Grades B and C Continuation Schools, and the professional text-books shall be those whose titles are printed below in italics.

LIBRARY

9. Under the direction of the Librarian and the other members of the staff, the Library shall be constantly used for consultation by the teachers-in-training. To this end it contains a supply of books of general literature, the principal magazines and educational journals, and an adequate number of copies of each of the most important professional books of reference, a list of which is given below. The Library is also supplied with tables for reading and study.

RELIGIOUS INSTRUCTION AND THE LITERARY SOCIETY

10.—(1) Religious instruction is provided by local clergymen of the different denominations.

(2) A Literary Society for general culture and for professional advancement shall be established in each Normal School, and shall be fostered by the staff as an important part of the Course of Study. All the teachers-in-training shall become members of this Society and shall attend the meetings regularly. [See Regulation 13 (4) (*b*).] The programmes for the meetings should include essays, debates, recitations, and the reproduction of suitable scenes from standard plays. Special lectures may be provided by the Minister.

PROGRAMME OF STUDIES

General

11.—(1) The Courses of Study shall consist of the following as defined herein:

Group I.

The Science of Education, School Management, Literature and Advanced Reading, Composition, Grammar, Arithmetic, Algebra, Geometry, History, Geography, and two of Latin, Greek, French, German or Spanish, Biology and Physics and Chemistry.

Group II.

Primary Reading, Spelling, Elementary Science, Nature Study, Agriculture and Horticulture, Vocal Music, Art, Writing, Physical Culture, Manual Training, Household Science (for women), Hygiene, Library Methods.

Group III.

Observation and practice-teaching in the Kindergarten-Primary and the various Forms of the urban and rural Model Schools, together with observation in the Kindergarten.

Group IV.

Religious instruction and the work of the Literary Society.

(2) (*a*) In determining the order and the grouping of the courses, due regard shall be had to the character of each subject and to the logical development of the courses.

(*b*) The principle of correlation shall be kept constantly in view as being of special importance in the methodology of each of the courses.

(*c*) From time to time the master in charge of a subject shall review his work with a further extension of the most important topics; but the responsibility for keeping up his knowledge of each course devolves upon the teacher-in-training himself.

(*d*) The Sessional Records shall consist of the records of the oral and the written class tests, the practical work, the practice in valuing answer papers of Model School pupils, and, where held, the term examinations in the subjects.

MODIFICATIONS OF THE COURSES

12.—(1) Students who hold Provincial professional certificates in Physical Culture, Art, Household Science, Manual Training, Agriculture and Horticulture, Vocal Music, and the Commercial subjects, may be exempted from examination in said subject or subjects, but will take the observation and practice-teaching in the subject or subjects concerned.

(2) Teachers-in-training who have passed in the Manual Training, Household Science, Agriculture and Horticulture, or Writing of the Lower School, or in the Art or Agriculture and Horticulture of the Middle School shall complete, to the satisfaction of the instructor or instructors therein, the Methodology, but may be exempted from the extension work of the course or courses concerned. [See Regulation 13 (2).]

(3) In the oral examinations and exercises in Vocal Music the instructor will give due consideration to the claims of the candidates who report themselves as incapable of learning to sing, provided that such claims are presented to the instructor at the beginning of the session. In no case, however, shall such consideration involve exemption from attendance at the classes or from the written examinations in the subject. If any candidate is unable to teach music that fact will be stated on his certificate.

ORGANIZATION OF THE COURSES

Introductory

13.—(1) In order that the teacher-in-training may begin early the Observation and the Practice-teaching, an Introductory Course shall be taken up in the following order:

(*a*) About twenty-five lectures upon the Nature of Education and General Method in the course in the Science of Education.

(*b*) A supervised series of not less than eight Demonstration Lessons in the different Forms of the Model Schools.

(2) The instruction in the special methodology of the subjects of Group I will be accompanied by review, from the academic standpoint, of such portions of the course in each subject as may be necessary to determine the scholarship of the students and to illustrate the methods of instruction in that subject, dealing in particular with those parts of the course that are difficult of presentation. In the

course in the subjects of Group II will be included such an extension of the work beyond the limits set by the courses of the Public and Continuation Schools as time will permit.

(3) So far as conditions permit, the programme of instruction will be organized on the basis of intensive study of a few subjects at a time.

(4) (*a*) The programme of instruction for each class, exclusive of observation and practice-teaching, will require about twenty-five class-periods of 45 minutes each weekly, or the equivalent thereof, during the Session. These class-periods will be distributed among the various prescribed courses approximately as follows: Science of Education, 60; School Management, 45; Literature, 45; Composition, 45; Grammar, 45; Arithmetic, 30; Algebra, 20; Geometry, 20; History, 30; Geography, 45; Biology, 30; Physics and Chemistry, 30; Classics Options, 25; Moderns Options, 25; Primary Reading, 20; Spelling, 10; Elementary Science, 25; Nature Study, 30; Agriculture and Horticulture, 30; Music, 45; Art, 45; Writing, 20; Manual Training, 45; Household Science, 45; Hygiene, 20; Physical Culture, 45; Library Methods, 15; Religious Instruction, one period a week.

(*b*) (I) The Courses in Science of Education, School Management, Literature, Composition, Grammar, Arithmetic, Science, Music, Art and Physical Culture will begin at the opening of the session and will continue throughout the session.

(II) The courses in the other subjects will begin as may be arranged by the Principal and will continue until completed. (See also Regulation 41.)

(III) The Literary Society shall hold one meeting a week, the work to begin as soon as the organization of the Normal School is completed and to continue until the special preparation for the June final examinations begins.

(*c*) The observation work will begin in the third week of the session and the practice-teaching in the fifth week. Exclusive of the introductory work, the programme of instruction will include for each student at least forty observation lessons and twenty practice-teaching lessons. These numbers will be increased to meet the needs of individual students.

DETAILS OF THE COURSES

Science of Education

14. The course in the Science of Education shall begin immediately after the Introductory Course, Section 13, is completed, and shall continue throughout the session. It includes the following topics:

Principles of Education: The nature of education; aims of education; social significance of education; education and democracy; educational institutions; the school curriculum; its nature and purpose; principles governing the organization of the curriculum; teaching as a vocation; the need and purpose of teacher-training.

General Method: The meaning of method; significance of method to the teacher; analysis of the learning process; how the mind works in the learning process; forms of lesson presentation; classification of knowledge; importance of

application of knowledge; lesson types; the art of questioning; history of method, Socrates, Scholasticism, the Humanists, the Realists, the Disciplinarians, the Naturalists, the Psychologists, Montessori.

Educational Psychology: The nature of man, heredity and instinct; structure and function of the nervous system; the function of education; psychology of the learning process; habit, method of habit-formation; detailed study of the mental processes; influence of bodily fatigue, etc., upon mental activity; the measurement of general intelligence.

Child Study: Aims of child study; methods of child study; periods of development; characteristics of each period; influence of child study as seen in the methods of present day primary education; historical development of primary education.

Books of Reference:—

Ontario Normal School Manual: *The Science of Education.*
Ontario Normal School Manual: *The History of Education.*
Betts: The Mind and its Education.
Angell: Psychology.
Pillsbury: Essentials of Psychology.
Halleck: Education of the Central Nervous System.
James: Talks to Teachers.
Raymont: The Principles of Education.
McMurry: The Method of the Recitation.
Bagley: The Educative Process.
Thorndike: Principles of Teaching.
Kirkpatrick: Fundamentals of Child Study.
Drummond: The Child, his Nature and Nurture.
Montessori: The Montessori Method.
Sandiford: Mental and Physical Life of School Children.

School Management

15. The course includes the following topics:

School Management, School Organization, School Administration; aims and scope of each; relation of each to the teaching process.

Forms of educational control; Department of Education and its functions; school boards and their functions; relation of inspectors and principals to teachers; teachers to caretakers, trustees; finances of education; business administration.

Types of schools; functions of each type, primary, secondary and higher schools; consolidated schools; day and evening schools; training schools; commercial, industrial, agricultural and technical schools, schools for subnormal children, defectives, and delinquents.

School sites and surroundings; playgrounds; school buildings; construction, class-rooms, fire escapes, caretaking, heating, ventilation, lighting, sanitation, decoration and equipment; apparatus; libraries; text-books, authorization; free text-books; visual aids; medical and dental inspection.

The Pupil: Privileges and duties; the health of the pupil; seating of pupils; fire-drill; the formation of his habits; the teacher's responsibility; fatigue; moral training.

The Teacher: Characteristics, qualifications, appointment, tenure of office, promotion, improvement of status; superannuation of the teacher; duties of the teacher in relation to pupils, parents, and other citizens; qualifications and characteristics of the successful teacher; his code of ethics.

The first day in school; the importance of the teacher's work and attitude.

Organization; grading and classification; promotion; retardation; elimination; care of individual and of abnormal children.

The recitation; assignment of home and seat work; oral and written exercises; how to study; questioning; treatment of answers.

Discipline: Its scope; relation to methods of teaching; incentives; causes of disorder and inattention; methods of dealing with weaknesses and offences; penalties.

Time-tables: Purpose; principles involved in construction; typical daily programmes for various kinds of schools.

Records and Reports: Keeping registers; value and kinds of school records; forms of reports.

Examinations and other tests of progress.

School Law and Regulations: The Ontario Schools Acts and Regulations in so far as they pertain to the duties of school boards, teachers, and pupils.

The following shall be included amongst the topics taken up under School Law and Regulations:

The necessity of making all agreements clear and conclusive. There should be contracts as provided by the statute; to substitute for the contract an agreement made orally or by letter correspondence often leads to misunderstanding and difficulty. Every school register contains two copies of a form of agreement. one for the teacher and one for the Board. Additional copies may be obtained on application to the Department.

Duties and powers of teachers and inspectors. The payments of the grants and of other matters directly affecting the teacher, trustees and school.

The calling and conducting of school meetings and the consideration of matters incidental thereto, such as the duties of auditors. appeals to inspectors, etc.

Non-resident pupils and the charging of fees.

Penalties and prohibitions regarding the buying and selling of text-books and school supplies.

Note.—Attention should be given in the discussion to the historical development of forms of school organization and management.

Books of Reference:—

Ontario Normal School Manual: *School Management.*
Ontario Normal School Manual: *The History of Education.*
Regulations and Courses of Study of the Public and Separate Schools.
Regulations and Courses of Study of the Continuation Schools.
Ontario Schools Acts.
Bagley: Class Management.
White: School Management.
Landon: Principles and Practice of Teaching and School Management.
Freeland: Modern Elementary School Practice.

Reading

16. The course includes the following topics:—

Introductory: The importance of training in reading and in the principles of vocal expression to the pupil's ordinary speech and general culture; the factors involved in the reading process; the work of the eye in reading; word-recognition; the reading process as a specialized mode of the thought process; the relation of ideas to symbols; constant necessity for associating the printed symbol directly with the idea; the ideal conditions for the formation of this association; the function of silent reading.

Methods: The problem of primary reading; the various methods of teaching beginners to read; merits and defects of each; the combination method as outlined in the primary reading manual; devices for securing word-recognition and for fixing attention upon the thought and feeling as well as upon word forms; the criticism of the pupil's reading; methods of conducting lessons in silent reading; the basis of expressive reading; the principles of vocal expression; attention to be given to expression at all stages; the place and limitations of imitative reading; oral reading through the school library.

A brief synopsis of the history of reading; the problems of reading as exemplified through present-day investigations; reading tests.

Practice; voice training; a class course in expressive reading; this work to be supplemented by practice in connection with the course in literature and with the activities of the Literary Society.

Books of Reference:—

Ontario Public School Manual: *Primary Reading.*
Ontario High School Reader.
Huey: The Psychology and Pedagogy of Reading.

Spelling

17. The course includes the following topics:—

Introductory: The problem of spelling; peculiarities of English orthography; causes of incorrect spelling; relationship of spelling to other subjects; recent investigations in the subject of spelling.

Methods: Necessity for teaching spelling; various methods of teaching spelling; phonic exercises and word-building in relation to spelling; devices for impressing the form of the word; visualization; oral spelling, transcription, syllabication; checking errors; methods of correcting errors; how to use the dictionary and spelling book; rules of spelling; how to conduct drill and review.

Selection of Material: Principles of selection; grouping of words; incidental spelling; grade, class and individual tests; the dictionary and the spelling book.

Tests: Oral and written tests; their merits and defects; other tests.

Practical exercises in spelling.

Books of Reference:—

Ontario Public School Manual: *Composition and Spelling.*
Suzzallo: The Teaching of Spelling.
Annandale: The Concise Imperial Dictionary.

Literature

18. The course includes the following topics:—

Introductory: The nature of literature; standards of good literature; its value in developing character; the teacher's qualifications; extensive and intensive study of literature.

Methods: Primary literature; values of reading and telling; place and value of oral reading in the interpretation and appreciation of literature; the method of memorizing selections; modes of expression in primary literature lessons; advanced literature; the preparation of the pupils; necessity for preparing a suitable mood for the lesson; how far the author's biography and the experience of the pupils have a place here; preliminary reading of the selection; the main thought of the lesson grasped and the main feeling of the lesson impressed through a reading of it; the analysis of a selection into its wider thought elements and feeling elements, and the analysis of these again into their elements; the place of explanation of words and phrases; final synthesis; final reading of the selection; the necessity for some form of self-expression; common faults on the part of both pupil and teacher and their correction; criticism by teacher and pupils; class treatment of such types of literature as the short poem, the long narrative poem, the play, the short story, and the novel.

Examinations: Difficulties of examining in literature; specimen examination questions and discussion of their suitability.

The value of literature in the Continuation School course; the principles followed in Ontario in arranging literature courses for Continuation Schools; books suitable for intensive study in the Grades B and C Continuation Schools; supplementary reading in the Grades B and C Continuation Schools, its importance, selection of books.

There shall be practice in reading in connection with the course in literature throughout the whole of the session.

Books of Reference:—

Ontario Public School Manual: *Literature.*
MacClintock: Literature in the Elementary School.
Arlo Bates: Talks on the Teaching of Literature.
Bolenius: Teaching Literature in the Grammar Grades and the High School.
Carpenter, Baker, and Scott: The Teaching of English.
Chubb: The Teaching of English.

Composition

19. The course includes the following topics:—

Introductory: The value of language training; the constructive and the interpretative phases of the study of English; present-day tendencies in the teaching of composition.

Methods: How to conduct oral composition; questioning in oral composition; criticism of oral work; dangers connected therewith and how to avoid them; how to deal with errors of speech; the relation of oral to written composition; how to conduct exercises in written composition; the gathering, selecting and arranging

of materials; value of topical outlines; supervision and aid during writing; the place of home-work in written composition; correction of errors in written composition; value of re-writing; how to teach letter-writing and business forms.

The mechanics of written composition, paragraph and sentence structure; paragraph compositions; the use of capitals, punctuation marks, quotation marks, abbreviations, etc.

Principles governing the choice of topics for the different grades of the Public and Separate Schools and for Grades B and C Continuation Schools; work to be suited to the age and experience of the pupils; gathering, selecting, and arranging material; class answers as material for oral composition; fairy and folk stories, fables, poems, biographies; descriptions of personal experiences, real and imaginary, and of places, operations and processes of personal interest; striking incidents in the history of the families of the pupils; pictures suggestive of stories, school games, autobiographies of familiar things; themes from minor incidents and from school studies, general themes; letter writing, with special attention to form and style; telegrams; invitations and replies.

Books of Reference:—

Ontario Public School Manual: *Composition and Spelling.*
Arlo Bates: Talks on the Writing of English.
Chubb: The Teaching of English.

Grammar

20. The course includes the following topics:—

Introductory: The meaning of English Grammar; its relation to speech; reasons for and against retaining it in elementary schools; reasons for deferring the formal study till Form IV; introductory work of Form III in connection with Composition.

Methods: How to treat grammar topics in Form III of the Public and Separate Schools; correction of pupils' errors; the formal lesson plan; selecting of examples for lesson presentation; how to obtain definitions; forms of application; how to conduct reviews; methods of teaching grammar topics in Form V of the Public and Separate Schools and Grades B and C Continuation Schools; how to use the text-book.

A review of the main topics in the grammar course prescribed for Public and Separate Schools and for Continuation Schools with special reference to the methods of presentation; history of the development of the English language.

Books of Reference:—

Ontario Public School Manual: *Grammar.*
Carpenter, Baker and Scott: The Teaching of English.
Chubb: The Teaching of English.
Leonard: Grammar and its Reasons.

Arithmetic

21. The course includes the following topics:—

Introductory: A brief study of present-day movements in arithmetic; the content selected for teaching; the relation of arithmetic to the present life of the child and to his future needs.

The origin of number, the various steps involved in the development of the number idea; the unit, its nature and use; the necessity for standard units; the ratio idea of number.

Methods: Analysis and synthesis, induction and deduction, illustrated and applied; the use of concrete material and apparatus; use of graphic methods; drill and devices to secure neatness, accuracy and rapidity of computation; importance, place, and treatment of mental arithmetic. Checking and verifying of results in arithmetic; selection of problems; where and how to assist pupils; type solutions; the unitary method, its merits and limitations; solutions by full analysis and by performing only necessary operations; methods of presentation suited to the different grades of the elementary school and to pupils of Continuation Schools.

Historical development of method in the teaching of arithmetic.

The various arithmetical operations and their application, with special stress upon the methodology of the elementary work:—

Counting, addition, subtraction, multiplication, division; use of tables; order of exercises; tests.

Fractions: (*a*) vulgar, different interpretations; numeration and notation; operations; conditions under which these operations can be performed; measures and multiples; (*b*) decimal; as special fractions and as complements of common notation; correspondence of methods with those of integers. Approximations.

Compound rules; tables of weights and measures; reduction; operations.

The metric system, when and how it should be taught.

Square root by factoring and by the formal method, illustrated geometrically and algebraically.

Mensuration, the application of arithmetic to space relations, theoretical and practical methods of obtaining formulae, practical problems to show the use of these formulae. The necessity of models in teaching mensuration.

Commercial arithmetic; how to make topics like discount, stocks, exchange, etc., concrete to the pupil. Use of tables in calculating interest, discount, taxes, etc.; commercial and business forms.

Industrial and Farm arithmetic.

Books of Reference:—

Ontario Public School Manual: *Arithmetic.*
McMurry: Special Method in Arithmetic.
Schultze: The Teaching of Secondary Mathematics.
Smith: The Teaching of Elementary Mathematics:
Suzzallo: The Teaching of Primary Arithmetic.
Young: The Teaching of Mathematics.

Algebra

22. The course includes the following topics:—

Arithmetical algebra; transition from arithmetic to algebra; generalization of language and of method; the introduction and defining of symbols; the negative quantity; the simple rules; the distributive law, commutative law, index law, sign rule; the equation and its place in algebra; factoring; highest common factor and lowest common multiple; use of detached coefficients; classes of simple equations; symmetry and its applications in elementary algebra; square root and its method of dealing with problems and the object to be kept in view in their solution;

verification of results; correlation of algebra and geometry; graphical methods of illustrating formulae and of interpreting the roots of equations; the theory of fractional and negative indices; surds and surd equations; quadratic equations of one and two unknowns; theory of quadratics; simple ratio and proportion; typical lesson plans.

Books of Reference:—

Schultze: The Teaching of Secondary Mathematics.
Smith: The Teaching of Elementary Mathematics.
Young: The Teaching of Mathematics.

Geometry

23. The course includes the following topics:—

Practical geometry to precede the theoretical; use of instruments; paper folding; necessity for accuracy; distinction between practical geometry and geometrical drawing; practical problems in the solution of triangles and in measuring heights and distances; limitations of appeals to the concrete; value of experimental proofs; need of clear and definite conceptions of the fundamental truths; the place of the definitions and axioms; when and how they should be introduced; the proposition; home-work and class-work; the analytic-synthetic method of dealing with propositions and deductions; the comparative values of propositions and deductions; the comparative values of propositions and exercises; how to get pupils to work original exercises; necessity of original work from the beginning of theoretical geometry; the indirect method of demonstration; methods of class teaching; importance of note-books for pupils' exercises; the grouping and relating of propositions; practical applicational algebraic solutions; Euclid's method compared with modern methods; method of teaching the more important propositions and exercises in Book I of the authorized text.

Books of Reference:—

Schultze: The Teaching of Secondary Mathematics.
Smith: The Teaching of Elementary Mathematics.
Young: The Teaching of Mathematics.

History

24. The course includes the following topics:—

Introductory: The scope of history; what makes an event important; value of Canadian and British history; stages in the study of history; characteristics and purpose of each stage.

Methods: Various methods of teaching history; basis of each; forms of recitation suited to the different stages; the place of oral teaching and of blackboard work by teacher and of written exercises by pupils; use of pictures, maps, readers, source books, text-books and current journals and periodicals; correlations in the teaching of history; typical lesson plans suited to the different grades of the Public and Separate Schools and to Grades B and C Continuation Schools; methods of teaching civics.

The selection and arrangement of material suitable for different grades; the place and purpose of each of the following:—

History of aborigines; current history; history of pioneers; local history.

Characteristics of peoples.

Biography: Selection of suitable biographies for pupils of different grades.

Epochs: Systematic chronological study of history.

Civics: Topics suitable for the different grades of Public and Separate Schools and for Continuation Schools.

Supplementary material: Significance and value of the flag. The causes and significance of the great war, 1914-1918.

Books of Reference:—

Ontario Public School Manual: *History.*
Bourne: The Teaching of History and Civics.
Johnson: The Teaching of History.
Hasluck. Teaching of History.

Geography

25. The course includes the following topics:—

Introductory: Scope of geography; relation of man to his environment; elementary geography; the content of home geography; geography in the higher grades of the Public School and in Continuation Schools; the relation of geography to other subjects.

Methods: The order of development in rural and urban schools; the use of maps, globes, pictures, blackboard drawings, natural objects, specimens of products, lantern slides and stereoscopic views; modelling, map drawing, scales and projections; weather observations and records; simple experiments in explanation of natural phenomena; excursions in connection with the observations in local geography; inter-school correspondence; the use of the reference library, books of travel, geography readers, newspapers and periodicals, etc.; common mistakes in teaching geography and means of avoiding them; methods of presenting geography topics in the different grades of the Public and Separate Schools and in Continuation Schools.

A review of the following topics together with the selection and the arrangement of subject-matter suitable for the different grades: The earth's surface and the changes wrought thereon by the various agencies; rock formation and disintegration; origin, formation and composition of soils; distribution of mineral deposits, including local deposits of building material, as marl, limestone, brick clay, sand, and gravel, and also of plant and animal life; the relation of the earth to other heavenly bodies; weather and climate; man's relation to the rest of the world; interdependence of nations; commercial and political geography; the relation of geographical conditions to historical events and to the development of nations; the relation of physical to commercial geography; influence of river valleys, mountains, plains, etc.; geography of the great nations.

Books of Reference:—

Ontario Public School Manual: *Geography.*
Geikie: Teaching of Geography.

BIOLOGY.

26 General: The values of observational studies and the proper use of the text-book in relation to these. The making of notes and drawings. How to use models and charts. Collection of specimens by pupils for their own use and for the school museum. The use of the school museum and means of adding to its contents.

The course in Botany includes the following topics—

The Plant: The plant as a whole and the parts of the plant including root, stem, leaf flower and fruit. The extent of the course for Lower School work and illustrations of the method of study and means of securing materials are to be illustrated through type lessons.

Fungi: How to collect and prepare specimens. Illustrative lessons on the habits and economic importance of common forms.

Plant Adaptions: Observation lessons on the preparation of plants for winter, method of study of storage organs, pollination and means of protection.

Seed Germination: Modes of germinating seeds and type lessons on the parts of seeds and the changes during germination.

Plant Morphology: Methods of preparing and of using materials for demonstrating the cross-sections of herbaceous and woody stems. Instructions in the use of the hand lens and the compound microscope.

Physiological Experiments: The method of experimental study illustrated by type studies of such topics as osmosis, capillarity, starch tests, functions of leaves etc.

Economic Value of Plants: How to secure and how to use books, bulletins, etc. on this subject.

Plant Identification: Practice in the use of the botany key and discussion of the method.

Forestation: Discussion of the meaning and value of Forestation literature of this subject; demonstration of the principles.

The Course in Zoology includes the following topics:—

Study of living animals. Construction, care and use of the aquarium and vivariums; how to conduct out of school studies by excursions and problem directing observations.

Supplementary Reading: Instructions for securing and for using the literature dealing with the topics of the supplementary course.

Anatomical Studies: Problems for field observations, directions for collecting and preserving specimens, methods in laboratory studies covering the work of the Lower School on insects, crustaceans, earthworms, mollusca, fishes, frogs, turtles, snakes, birds and mammals. Type lessons should be taught to serve as a basis for the discussion of methods in observational study and to illustrate the mode of relating the form or structure to function.

BOOKS OF REFERENCE:—

High School Manual; *Suggestions for Teachers of Science.*
Burland: First Course in Zoology.
Woodhead: The Study of Plants.
Lloyd and Bigelow: The Teaching of Biology.

Physics and Chemistry.

27. The course includes the following topics:—

Introductory: Scope and value of the natural sciences; meaning of science and scientific method; educational value of science; inductive and deductive methods of investigation.

General Method: How to conduct experimental work in Physics and Chemistry, the proper use of note-books, text-books, laboratory manuals, supplementary reading, and class-room discussions in connection with experimental work; laboratory apparatus, proper equipment, manipulation of and making simple apparatus; the viewpoint for the science teacher.

Physical Science: The general method outlined above to be illustrated by teaching to the students and to other classes in the presence of the students; these lessons to be based upon the Lower and Middle School Courses in Hydrostatics, Heat, Light, Sound, Magnetism, Electricity and Mechanics; the topics should be composed chiefly of those difficult of presentation, such as: air pressure, liquid pressure, shadows, refraction of light, images in lenses and practical applications, the spectrum, specific gravity, sources of heat, effects of heat, transmission of heat, specific heat and heat fusion, the simple cell, the electro-magnet and its common applications, the earth's magnetism, the bar magnet and mariner's compass, sound vibrations, sound interference, laws of transverse vibrations of strings and problems related thereto.

Chemistry: Order of treatment; methods of conducting experiments and giving instructions illustrating the points stated under general method and also illustrating the special methods of treatment of such topics as: air and its compounds, gas laws, combustion, solution, formulæ, equations, chemical arithmetic, oxides, acids bases, salts and chemical nomenclature; how to approach laws and theories inductively.

BOOKS OF REFERENCE:—

Ontario High School Manual; *Suggestions for Teachers of Science.*
Twiss: Principles of Science Teaching.
Smith and Hall: The Teaching of Chemistry and Physics.

Elementary Science.

The course includes the following topics:—

METHODS: The scope and value of the experimental and natural sciences; the meaning of science and scientific method; value of observation and experimentation; inductive and deductive methods of investigation; the place of class-room discussion; the use of note-books and text-books; the methodology of the Elementary Science course of Form V, with illustrations of typical topics thereof.

BIOLOGY: The observation method as applied in the study of the habits and life functions of animals and plants selected from those prescribed for the Lower School course of study; the study of the external details of the form and structure of these which adapt them to their life habits; the value of drawings, printed and oral descriptions, charts, models, etc., as supplementary concrete materials; the use of a key to plants.

BOOKS OF REFERENCE:—

Ontario High School Manual: *Suggestions for teachers of Science.*

Ontario Public School Manuals: *Nature Study; Geography; Household Science.*

Nature Study

28. The course includes the following topics:—

The scope of nature study; relation to other subjects; various aims; relation of nature study to rural life; importance of relating feeling to knowledge in nature study work.

Methods: Nature study as a method; special characteristics of a typical nature study lesson; uses and limitations of records of observations; directions for conducting school excursions; the study of typical topics dealing with materials of nature study and illustrating methods of presentation in all grades.

Materials of nature study; distribution of time between formal lessons and observational work; methods of conducting observational work; records of periodical natural phenomena; collections, excursions, aquaria, vivaria; use of books, charts, pictures, museum specimens, etc., school museum.

School gardens as a phase of nature study work; directions for the planning and the care of school gardens.

BOOKS OF REFERENCE:—

Ontario Public School Manual: *Nature Study.*

Bailey: The Nature Study Idea.

Comstock: Handbook of Nature Study.

Silcox and Stevenson: Nature Study.

Dearness: How to teach Nature Study.

Agriculture and Horticulture

29. The course includes the following topics:—

Dairying: The economic value and the care of milk and butter; Pasteurization, churning, separating; the use of the Babcock tester and the lactometer.

Poultry: Utility breeds; care of poultry; care, shipping, handling and marketing of eggs.

Breeds of Farm Animals: The characteristics of the different breeds; their economical values.

Field Crops: Identification of seeds; seed testing; corn judging; seed selection; cover crops; discussion of weed seed impurities and of plants of economic value; simple classification of soils; principles and plans of drainage; crop rotation; fertilizers.

Horticulture: Pruning; spraying; grafting; propagating; packing and shipping fruit; care of garden and house plants, making a hot-bed and cold frame; parasitic fungi and fungicides.

Birds and Insects: The most important in their relation to agriculture; injurious insects and insecticides.

Experimental Plots: Preparation and planting, to illustrate the benefits of seed selection; the rotation of crops; growing improved oats, barley, alfalfa.

School Gardens: The purpose of school gardens; their relation to nature study, agriculture, and horticulture; planning and plotting school gardens; work in the school garden by the teachers-in-training; observation and supervision of the work done by the pupils of the urban and rural schools; provision for the care of the pupils' school gardens during the summer vacation; care of tools and machinery.

School Grounds: Planning; planting of trees, shrubs, and ornamental plants.

Home Projects: Direction of the pupils' home work; inspection of the pupils' home work and of the records in their note-books.

School Progress Clubs: General scope and management.

School Fairs: Their use in connection with the teaching of Agriculture.

Books of Reference:—

Waters: *The Essentials of Agriculture.*
Ontario Teachers' Manual: *Elementary Agriculture and Horticulture.*
Warren: Elements of Agriculture.
Burkett, Stevens, and Hill: Agriculture for Beginners.

Notice.—By special arrangement with the publishers, teachers-in-training may obtain at the Normal School copies of *The Essentials of Agriculture* at a reduced cost. The Principal will make an announcement on the subject as soon as the school opens.

Classics (Latin and Greek)

30. The course includes the following topics:—

The relation of method in teaching Latin or Greek to linguistic method in general; the effect of the object of teaching Latin or Greek upon the method in various departments, such as oral reading, grammar, translation, sight reading and the literary or historical content; illustration of methods in typical lessons; use of the phonograph.

Pronunciation; oral reading, sight reading, and English translations of the first reading lessons in the Ontario High School Latin or Greek Book; general principles of word-structure and sentence-structure; word order; special topics of inflection and syntax included in the earlier lessons of the Latin and Greek Book; methods of teaching the parts of a lesson; the subject matter, the vocabulary and the exercises; exercises in translation and interpretation from the authors prescribed for the Middle School examinations; special topics of inflection and syntax included in the later lessons of the Latin and Greek Books.

Note.—The instruction in this course will deal mainly with the Latin language.

Books of Reference:—

Bennett: The Teaching of Latin.
Chickering and Hoadley: Beginner's Latin by the Direct Method.
Crawford: On Pronouncing Latin.
Hale: The Art of Reading Latin.
Westaway: Quantity and Accent in the Pronunciation of Latin.
Bristol: The Teaching of Greek.
Thompson: Homeric Grammar.
Goodwin: Greek Grammar.
Goodell: Greek Grammar.
Arnold: On Translating Homer.

French, German and Spanish.

31. The course includes the following topics:—

Introductory: Importance of the study of a modern language; aims of the study; general instructions in regard to conducting classes with the purpose of helping the student to profit from observation lessons.

History of Methods: Consideration of methods formerly employed or still in vogue; the beginnings of modern language study; the Grammar Method; the Natural Method; the Reading Method; the Psychological Method of Gouin; the Direct Method as used at present in Great Britain and other countries.

Study of Methods: A comparison of methods in view of the present conditions in the schools, e.g., the age and attainments of pupils, the size of classes, allotment of time, text-books in use, regulations governing the teacher; illustrative lessons.

Pronunciation: Study of phonetics; the international phonetic alphabet; phonetic texts and dictionaries; drill in pronunciation; oral work; conversation; use of the phonograph.

Elementary Classes: Classes conducted without a text-book; the study of sounds; conversation lessons; how to make use of the objects of the classroom, pictures, and drawings; value of unison work; variety and interest; dictation; note-books and their correction; books and pictures; necessity for thorough drill.

Grammar: Inductive and deductive teaching; grammatical rules and their value; special illustrative lessons on essentials; special review lessons.

Translations into English: When to introduce a Reader; the grammatical preparation necessary; idiomatic translation; methods of conducting the recitation; exercises in translation and interpretation from the Authors prescribed for the Middle School examination.

Note.—The instruction in this course will deal mainly with the French language.

Books of Reference:—

Jespersen: How to Teach a Foreign Language.
Breul: Teaching of Modern Languages.
Savory and Jones: Sounds of the French Language.
Dumville: French Pronunciation.
Vietor: German Pronunciation.
Bagster-Collins: The Teaching of German.
Heath: Report of the Committee of Twelve.
Palmer: Scientific Study and Teaching of Languages.
Kittson: Theory and Practice of Language-Teaching.

Vocal Music.

32. The course includes the following topics:—
topics:—

Introductory: Purpose of music in the schools; the staff and tonic sol-fa systems of notation; importance of grading musical studies.

Notation: Elements of notation, both tonic sol-fa and staff; the formation of the major and minor diatonic scales; elements of modulation and transposition.

Vocal Physiology: Comparison of abdominal, intercostal, and clavicular breathing; the larynx; action of the vocal chords in the production of the various vocal registers; influence of the mouth and nasal cavities on vocal resonance and vowel quality; care of the voice in singing.

Tune: Practice in singing from the staff and tonic sol-fa modulators; intervals of moderate difficulty, contained in the major diatonic scales; modulation from any given key to its relative minor, and its dominant and subdominant.

Time: Practice in singing rhythmical studies in simple or compound duple, triple, or quadruple times; the pulse as the unit of measurement in time, with its divisions into halves, quarters, or thirds in varied combination.

Ear Training: Development of the power to recognize by ear, and to transcribe the tonal and rhythmic elements of short musical phrases, when sung or played.

Voice Culture: Practice in correct tone production; vowel formation; enunciation of consonants; breath control; correct intonation; and the equalization of the various registers of the voice.

Songs: The study of songs suited to the requirements of pupils in all grades, with special attention to development of power in musical expression; the study of part songs of recognized merit, arranged for adult voices.

Methods: Methods of teaching the staff and tonic sol-fa systems of notation; how to teach rote songs; control of the class during the music period; the treatment of musically deficient children; use of materials; selecting of music suited to the different grades of the Public and Separate Schools; the planning of type lessons.

Notice.—Teachers-in-training who, from any cause, consider themselves incapable of learning to sing should present their claims to the teacher of music at the beginning of the session. For such teachers-in-training special instruction, if likely to be effective, will be provided, adapted to their needs. The written examinations, however, are compulsory for all students. If a candidate is unable to teach music this fact will be stated in the certificate.

Books of Reference:—

Cringan: *The Educational Music Course.*
Cringan: *Teacher's Handbook of Tonic Sol-fa System.*
Curwen: The Standard Course.
Curwen: The Teacher's Manual.
Hardy: How to Train Children's Voices.
Mason: How to teach the Staff Notation.
Hulbert: Breathing for Voice Production.
Ham: Elementary Harmony.

Art.

33. The course includes the following topics:—

Methods: The development of each division of the subject through the different forms, with due consideration of the underlying principles which it is expedient to teach in each form; the interrelation of the different divisions of the subject; the selection and organization of the subject matter in each division from the standpoint of lesson presentation; methods of presentation, mediums, and modes of expression suited to the different forms. The use and value of drills and their proper time and place; the discussion of difficulties and ways and means of obviating these. Points to be considered in the valuation of drawings. Methods of examination. Class criticisms and the selection of good examples of pupils' work for future use as illustrative material. The collection, preparation, and organization of illustrative material; necessary materials and apparatus and their use and care; the selection, preparation, and care of specimens and models; useful accessories and helps.

Representation: Appropriate mediums and modes of treatment for the following: Specimens from nature such as grasses, twigs, flowers and other parts of plants, and such common objects as brooms, saws, shovels; trees and simple landscapes; birds, animals, or insects; spherical, cylindrical, and rectangular solids, or other objects through which the principles of freehand perspective may be observed; simple groups of objects.

The illustration of games, occupations, events, nursery rhymes, and stories; drawing from the pose; practice in rapid drawing on the black-board with white and coloured chalks.

Colour: The solar spectrum; the six standard colours, with their intermediate hues; the three properties of colour, with scales exemplifying these; the making and applying of uniform and graduated washes of colour; monochromatic, complementary, analogous, and dominant harmonies, and their use in decorative compositions and designs, and also in problems relating to life, such as the choosing of suitable colour schemes for dress, house furnishing, and school-room decoration.

Decorative Design: The sources of design; the laws that underlie good design: the making of borders, all-over patterns, and other surface patterns, and their application to appropriate constructed objects.

Lettering: The principles of good lettering; single line capital letters; Roman capitals; small (or lower case) letters; the use of letters in titles, mottoes, and posters.

Composition: A study of the principles of good composition in the arranging of specimens and models, and in the size, spacing, and placing of drawings.

The Study of Masterpieces and of the History of Art: The study of pictures; the study of styles of architecture; a concise outline of the history of art and of art education.

Books of Reference:—

Ontario Public School Manual: *Art.*
Manual Arts Drawing Books.
Parallel Course Drawing Books.
Art Course, Chicago Public Schools.

Applied Arts Drawing Books.
Graphic Drawing Books.
Art Education for High Schools.
Text Books of Art Education.
Caffin: A Child's Guide to Pictures.
Emery: How to Enjoy Pictures.
Koch: Pencil Sketching Portfolio.

Writing.

34. The course includes the following topics:—

Methods: Various styles of penmanship, their advantages and their disadvantages, their points of excellence, and their relative importance; the child's difficulties in mastering writing; the earliest lessons and the work preliminary to formal writing; the steps in the lessons and the standards in the intermediate and the senior grades; the materials to be used; the various writing movements and their value; relation of teaching lessons to home or seat exercises; right posture and penholding; the eye and its control of penmanship; importance of good writing materials; formal drills: value, management, various forms of movement drills, the best organization of these exercises; counting, its purpose, its use; relations of speed and accuracy; letter groups on the basis of movement; the chief defects in children's penmanship, their causes, the necessity for prompt detection and thorough correction; individual *versus* class errors; uniformity of attainment in a class, its value, how fostered; prevention of scribbling; observing the conventional letter forms throughout the grades; economizing time; use of standard charts for judging writing.

Book of Reference:—
Ontario Public School Manual: *Writing.*

Manual Training.

35. The course includes the following topics:—

Equipment: The equipment for urban and for rural schools.

Handwork: Typical forms of constructive work adapted to the capacities of pupils in Forms I, II, and III, including weaving, elementary paper and cardboard work and modelling.

Advanced cardboard work; book-binding, simple repair of books; trimming and mounting of pictures.

Materials used for modelling and how to keep them; modelling natural forms; modelling as a means of teaching geographical concepts; supplementary observation of the topography of the school neighbourhood; supplementing word pictures in readers, etc.; models used in conjunction with the teaching of drawing and design.

Tools and how to keep them in good working order; designing; a short course in bench work; uses of woods and their suitability to such uses; such exercises as may be related to agriculture and horticulture, nature study, school exhibits, etc.

Work suitable to Forms IV and V; advanced cardboard work, portfolio, bookbinding, picture mounting.

Mechanical Drawing: Its use, its relation to freehand drawing and to perspective; simple exercises for practice, plans and blue-prints.

Books of Reference:—

Ontario Public School Manual: *Manual Training.*
Story-telling with Scissors.
Swannel: Paper Modelling.
Baxter: Paper and Cardboard Construction.
Lester: Claywork.
Sargent: Modelling in Public Schools.
Noyes: Handwork in Wood.
Prang: Industrial Arts Text Books.
Prang: The Manual Arts for Elementary Schools.
Marten: Manual Training Play Problems.

Household Science.

36. The course includes the following topics:—

Introductory: The scope of Household Science.

Equipment: The equipment for urban and for rural schools.

The House: Purpose; location; general ideas concerning use and furnishing of the rooms; methods of cleaning, including principles of laundering.

Foods: Elements of food required by the body; their sources, food value, and digestion; analysis of common foods—milk, eggs, meat, fruit, vegetables, cereals; effect of heat on these, as to food value, digestibility, and flavour.

The principles of feeding during infancy and childhood.

Cookery: Principles of combustion; construction and care of stoves; fuels; principles and practice of each method of cooking—boiling, simmering, steaming, steeping, toasting, broiling, frying, baking; food combinations; flour mixtures; lightening agents used in these; table service; the preparation and serving of school lunches.

Bacteriology: Occurrence and nature of bacteria; sanitation based on this knowledge; necessity for cleanliness, care of plumbing, disposal of waste, methods of disinfection; preservation of foods.

Sewing: Study and application of different stitches: basting, running, stitching, back stitching, combination stitch, overcasting, top sewing, blanket, herringbone, feather-stitching, mending, darning (different kinds); button holes, mitred and square corner, hemming, making doll's apron.

Textiles: Study of four principal fibres: cotton, linen, wool and silk; their properties in relation to use; names, kinds, widths and prices of common materials; adulteration of materials.

Note.—The subject of sewing shall be stressed, as it is obligatory in all the schools where there are girls.

Books of Reference:—

Ontario Public School Manuals: *Household Management, Sewing, Household Management for Rural Schools.*

Greer: Food and What it Does.
Jones: Lessons in Elementary Cooking.
Lincoln: The School Kitchen.
Danniels: Furnishings of a Modest Home.
McGlanfin: Handicraft for Girls.
Walker: Manual of Needlework and Cutting out.

Hygiene.

37. The course includes the following topics:—

School and Home Hygiene: School sanitation; home sanitation; common facts of bacteriology; general instruction for the detection of communicable diseases; provisions of the Ontario Public Health Act and Regulations so far as they refer to pupils, teachers, and school boards.

Personal Hygiene (with the necessary minimum of anatomy and physiology); framework of the body; spinal curvature, its causes; digestive system; foods; care of teeth; saliva. Physiology of respiration and circulation. Skin and other depuratory organs, hair, nails, bathing, clothing, etc. Muscles: relation of exercise to health. Brain and nervous system; relation of mind to body; mental exercise; study; rules regarding mental work; irregular work and over-work; mental strain and worry. Effects of alcohol, tobacco, etc., on organs and functions.

Physical Defects of the Eye: Affections of eyes due to improper school accommodations; colour blindness; tests for defective vision. Ear, nose, and throat troubles causing dullness in pupils; tests for defective hearing and breathing.

Accidents and Emergencies: First aid in such cases as fainting, suffocation, drowning, hemorrhage, fractures and dislocations, venomous stings, poisoning, frost-bites, sun-strokes and heart-strokes, burns; bandaging.

Books of Reference:—

Ontario Public Health Act and Regulations.
Allen: Civics and Health.
Bailey & Coleman: First Book of Biology. (Part on Human Biology).
Gulick: Hygiene Series.
Martin: The Human Body.
Health Series of Physiology and Hygiene.

Physical Culture.

38. The course includes the following topics:—
topics:—

Effects of physical culture; its hygiene; general directions for exercises; simple exercises and positions; marching, running, jumping, and breathing exercises; the arrangement of the class (order movements); order and progression of exercises; as many as practicable selected physical exercises in Series A, B, and C, of tables 1-72 of *The Syllabus of Physical Exercises for Schools;* supplementary physical exercises: abdominal exercises, skipping exercises, dancing steps, indoor and outdoor games; class-room exercises; dress suitable for the exercises; calisthenics and drill; the use of apparatus; equipment of a gymnasium.

Books of Reference:—

The Syllabus of Physical Exercises for Public Elementary Schools.
Barton: Physical Training, including Athletics and First Aid to the Injured.
Bancroft: Games for the Playground, Home, School and Gymnasium.
Kimmons: Guild of Play Book. Parts 1, 2 and 3.
Mari Hofer: Popular Folk Games and Dances for Playground, Vacation School, and School-room use.
Burchenal: Dances of the People.
Burchenal: Folk Dances and Singing Games.

Library Methods.

39. The course includes the following topics:—

The use of card catalogues, reference books and periodicals, and information files; the organization and administration of a library in a rural school; the relation of the school library to the community; the selecting of books for a school library; the reading room; the care of books; library lessons with children.

Observation and Practice-teaching.

40. () The Introductory Course provided for in Regulation 13 shall be followed by systematic Observation and Practice-teaching in the Model Schools, supervised by the staffs of the Normal and Model Schools, but each teacher-in training shall be given an Introductory Practice-teaching course of at least 5 lessons, which are not to be taken into account in estimating his final standing. [See Regulation 42 (1).].

(2) The teachers-in-training shall be divided into suitable groups, and the work of Observation and Practice-teaching, including Observation in the kindergarten, shall be taken up systematically per time-table arranged from time to time. At least that group to which the teacher-in-training belongs shall be present at the discussions on his Observation and Practice-teaching lessons.

(3) (*a*) The Observation and Practice-teaching lessons for each teacher-in-training shall be arranged so as to cover the work of the Public and Separate Schools and of Grades B and C Continuation Schools, and in as many of the subjects as possible.

(*b*) The Observation and Practice-teaching lessons provided for in the logical development of the Normal School course shall be supplemented by other lessons in such forms of the Model School as may be available.

(*c*) Continuous Practice-teaching for several periods toward the end of the course shall be required, the teacher-in-training being wholly responsible for the management of the class.

(*d*) After Christmas teachers-in-training who have already had experience in teaching may be available for not more than one fortnight each as substitutes in the Public, Separate or Continuation Schools of the locality (urban or rural) in which the Normal School is situated, subject to arrangement with the principal of the Normal School; but no allowance for such absence will be made at the final examinations, nor may the leave of absence be extended without the special permission of the Minister.

(*e*) A teacher-in-training who has not had experience in teaching may, if granted permission by the Normal School Principal, serve one week in a Public or Separate or Continuation School as an assistant to the regular teacher, provided that the latter continues in actual charge of her class room throughout the period of the visit. Such a teacher-in-training may later be available for not more than one week as a substitute in a Public. Separate or Continuation School of the locality (urban or rural), in which the Normal School is situated.

(4) Teachers-in-training shall be notified by the Principal, of the subject and the scope of the Observation lesson, and shall prepare the lesson beforehand. After observing the lesson, they shall discuss it with the Model School teacher concerned or submit a written report thereon.

(5) (*a*) Teachers-in-training shall be notified of the subject and the scope of the Practice-teaching lesson, by the Model School teacher concerned after consultation with the Normal School Master concerned.

(*b*) Teachers-in-training shall prepare a plan of each Practice-teaching lesson and submit it for the consideration of the Model School teacher concerned, before attempting to teach it.

(6) (*a*) The model lessons shall be taught in accordance with the regular programme of the Model School.

(*b*) The Normal School teachers in charge of the academic work in a subject shall develop its details in their teaching order, and after each suitable step, shall also themselves teach model lessons both in special classes and in the Model School itself.

(7) (*a*) The necessary applications of the Science of Education and of Special Methodology shall be made systematically by both the Normal School Masters and the Model School teachers in connection with the Observation lessons and the Practice-teaching; so that the course may be taken up in terms of the child's mind and growth. Throughout the course, the Master in charge of the Science of Education shall himself formally illustrate by actual teaching the principles he has discussed in class.

(*b*) As far as practicable, it shall be the duty of the Principal and the other members concerned of both the Normal School and the Model School staffs, in accordance with the time-table, to be present at the Observation lessons and Practice-teaching of the teacher-in-training and to make jointly the criticism and the valuation of his work.

FINAL STANDING.

41. The final standing of the teacher-in-training shall be determined in accordance with the scheme set forth in Regulations 41, 42 and 43 below.

Examinations.

Subjects and Values.

42. (1) For the purpose of determining the final standing of teachers-in-training, the subjects of the course of study shall be grouped as follows:

Group I: Science of Education
School Management
Literature and Advanced Reading
Composition and Grammar
Arithmetic
Algebra and Geometry
History
Geography
Options, (any two of) Latin, Greek, French, German or Spanish, Biology, Physics and Chemistry.

Group II: Primary Reading and Spelling.
Elementary Science
Nature Study
Agriculture and Horticulture
Vocal Music
Art
Writing
Manual Training
Household Science
Hygiene
Physical Culture

(2) The final examination papers in Group I will be prepared by the Department and will be uniform for all the schools; the answer papers will be read by the staffs and the results reported to the Department. The examinations in the subjects of Group I shall be held as follows:

(I) In April: History, Algebra and Geometry, French, German, Spanish, Latin, Greek, Biology, Physics and Chemistry.

(II) In June: Science of Education, School Management, Composition and Grammar, Literature and Advanced Reading, Arithmetic, Geography.

(3) The final examination papers and the other tests in Group II shall be prepared for each school and the results determined by its staff. Copies of the papers and a statement of the other tests shall be sent to the Registrar of the Department on the completion of the examination concerned. The examinations in the subjects of Group II shall be held as follows:

(I) In December: Primary Reading and Spelling, Writing and Hygiene.

(II) At the completion of the course. Elementary Science, Nature Study, Agriculture and Horticulture, Vocal Music, Art, Manual Training, Household Science and Physical Culture.

(4) The maximum number of marks for each subject in Groups I and II shall be 200. In Group I, 80 marks shall be allowed for sessional records and 120 marks for the final examination; in Group II, 100 marks shall be allowed in each subject for sessional records and 100 marks for the final examination.

(5) For the accommodation of extra-mural candidates, papers will be set at the June examinations on all the subjects of Groups I and II. Intra-mural candidates who, through sickness or family affliction, are prevented from writing on any or all of the subjects of the December or the April final examinations may write on these subjects in June.

Observation and Practice-teaching

42. (1) The marks counted in estimating the final standing of a teacher-in training in Observation and Practice-teaching shall be those awarded him for the lessons following those which form the Introductory Practice-teaching Course. [See 39 (1).].

(2) The maximum marks for Observation shall be 400, and for Practice-teaching, 800.

Certificates

43. A teacher-in-training who obtains 50 per cent. of the marks in each subject of Groups I and II and 60 per cent. of the marks in each of the divisions of Group III, may, on the recommendation of the staff, be granted an Interim First Class certificate.

A teacher-in-training who passes in Part III and fails in not more than five subjects of Groups I and II and who does not receive less than 45 per cent. in any subject, may, on the recommendation of the staff, be granted an Interim Second Class certificate.

A teacher-in-training who fails in not more than five subjects of Groups I and II and who passes in Group III may be exempted from further attendance and may complete his standing for a First Class certificate by rewriting at one annual examination or, separately, at different annual examinations, the examination in the subject or subjects in which he failed.

All other candidates who have failed to obtain the necessary final standing will be required to attend another session, beginning after Christmas vacation.

Candidates who hold Permanent Second Class certificates with the academic standing required for admission to the Course for a First Class certificate and who submit certificates of at least three years' successful experience from the Public or Separate School Inspectors under whom they have taught during that period will be exempted from attendance, but will take the final examinations in each subject of Group I and in Elementary Science, Agriculture and Horticulture and Hygiene of Group II, and must also satisfy the examiners by practical tests of their ability to teach the subjects of Form V of the Public Schools and of Grades B and C Continuation Schools. If such a candidate passes in his practical tests and fails in not more than three subjects of Groups I and II, he may complete his standing for a First Class certificate by rewriting at one annual examination or separately, at different annual examinations, the examination in the subject or subjects in which he failed.

Candidates who hold Ordinary High School certificates may qualify for Interim First Class certificates by attending a Normal School for the third term, passing the final examinations in Arithmetic, Composition and Grammar, History,

Primary Reading and Spelling, Geography, Elementary Science, Nature Study, Art, Music, Physical Culture, Manual Training and (for women) Household Science of the Course for First Class certificates, and satisfying the examiners that they are able to teach these subjects.

Candidates who failed at an examination for First Class certificates under former regulations, and who were exempted from subsequent attendance will take, not later than a date determined in each case by the Minister of Education, the final examination papers as prescribed herein, but their standing will be determined in the subject or Groups as constituted under the regulations in force when they first wrote.

Candidates who have been exempted by the Minister of Education from attendance at a Normal School on account of equivalent training in other provinces or countries and who are required to write on the final examinations of the Course will take all final examinations in the subjects of Groups I and II, and will also satisfy the examiners by teaching and other tests that they are competent to direct the practical work in the subjects covered by the certificates for which they are candidates.

The pass standard for all candidates exempt from attendance is the same as that for students in attendance but no allowance will be made for sessional work, if any, in the case of candidates not in attendance.

The final examinations in Reading, Vocal Music, and Physical Culture for students exempt from attendance will include written tests, and also practical tests, to each of which 100 marks will be assigned.

Candidates exempt from attendance shall take their practical tests in Group III at such times during the session as may be decided upon by the Principal. They shall take their examinations in the subjects of Groups I and II in June on dates set apart for the examination, or, in part, in June and, in part, at such times during the session as are set apart for the examinations of candidates in attendance.

VALUE OF CERTIFICATES

45. (1) Interim First Class certificates quality the holders as teachers of Public and Separate Schools and of Continuation Schools employing the time of only one teacher, and as assistants in any Continuation School.

(2) After two years' successful experience thereon, duly certified on an official form by the Public, Separate or Continuation School Inspector or Inspectors concerned, an Interim First Class certificate will be made permanent, provided that the holder is then twenty-one years of age.

(3) A permanent First Class certificate qualifies the holder to act as Principal of a Grade B or Grade C Continuation School, provided that he has completed at least two sessions of one or more Departmental Summer Courses approved by the Minister.

APPEALS

46. A candidate who failed at an examination for a certificate may have his case re-considered if, within two weeks after the announcement of the results, his appeal, with a statement of the grounds on which it is based, is lodged with the Deputy Minister, accompanied by a fee of $2.00. This fee will be returned to the candidate if the appeal is sustained.